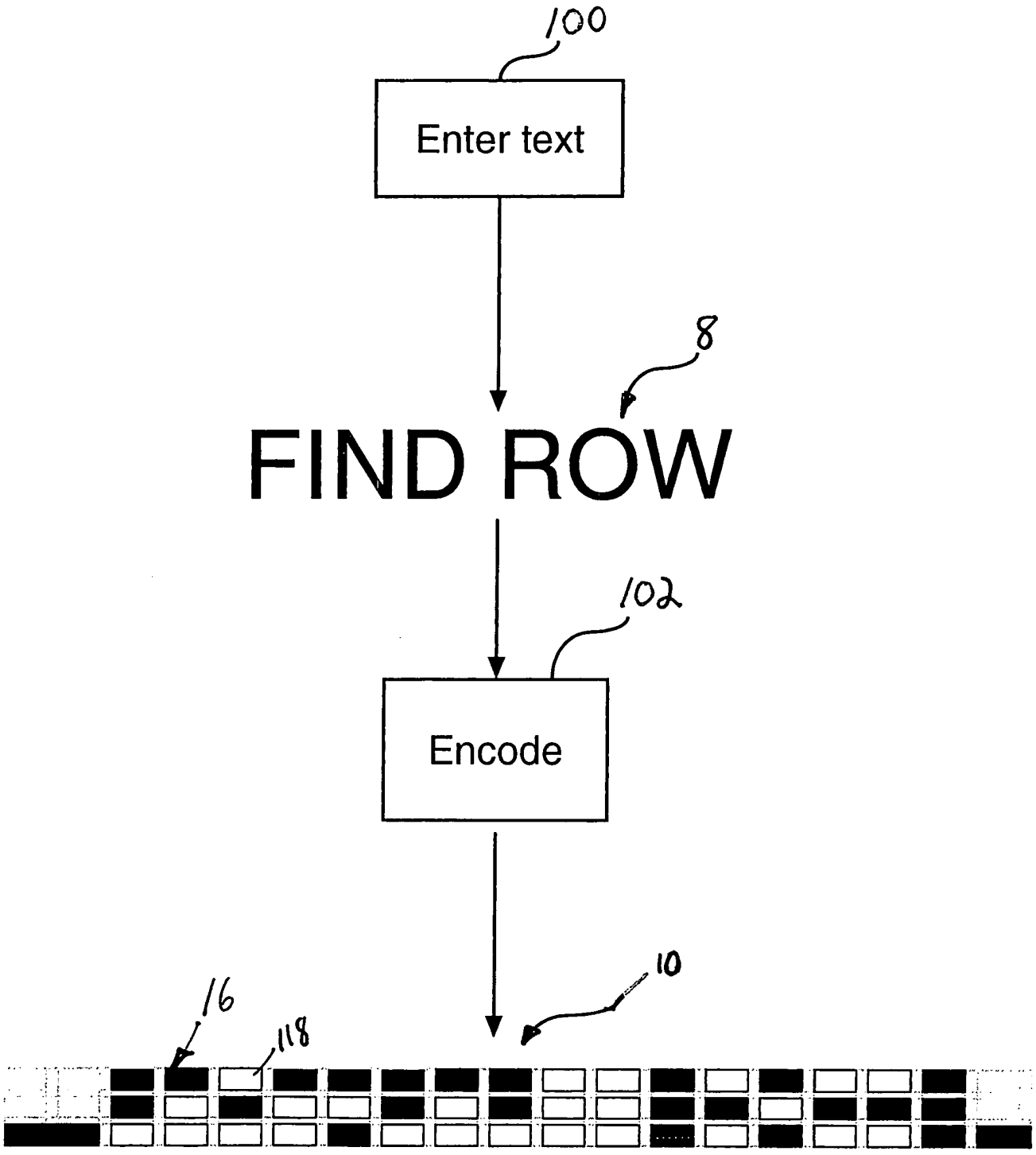


FIG. 1

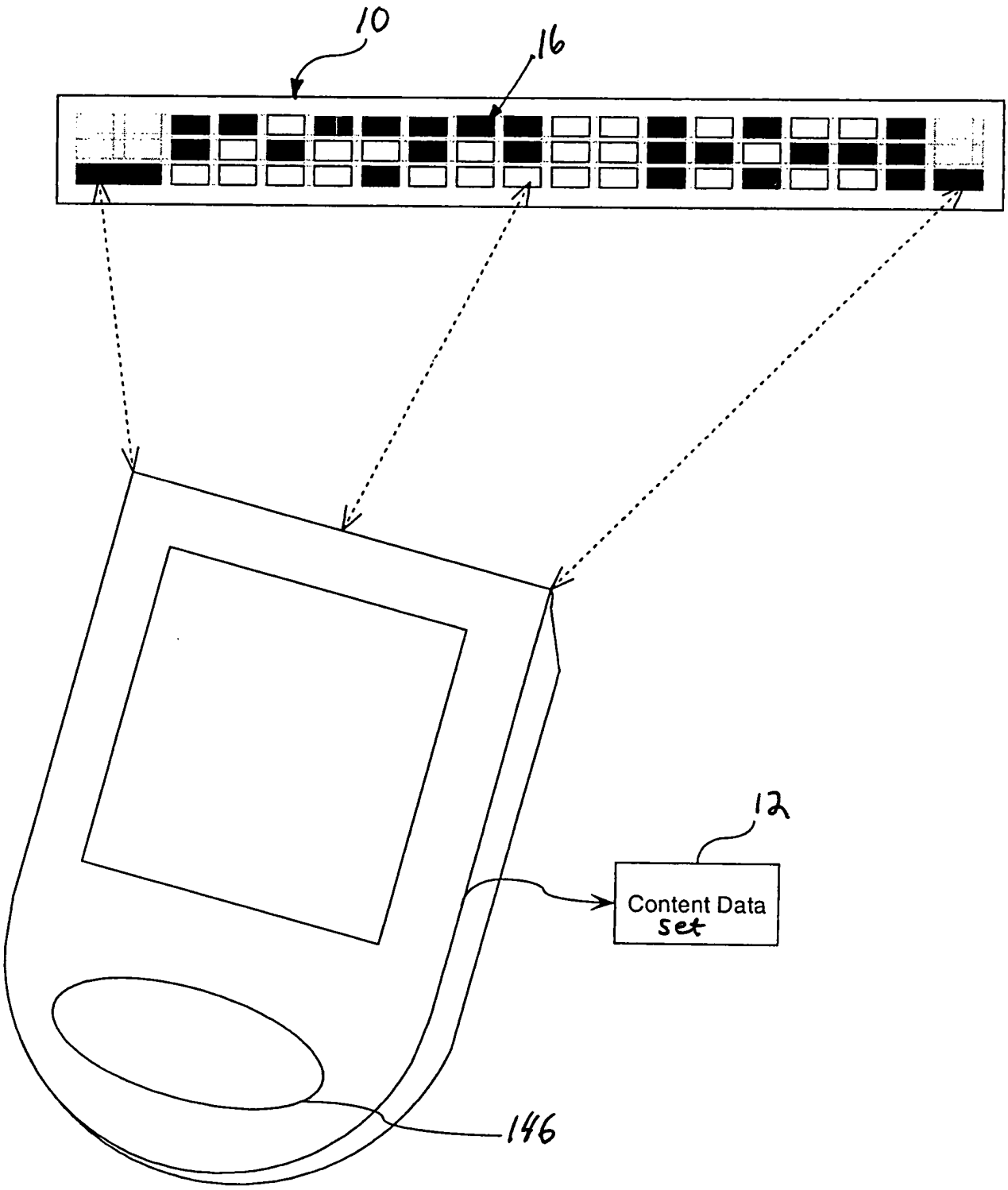


FIG. 2

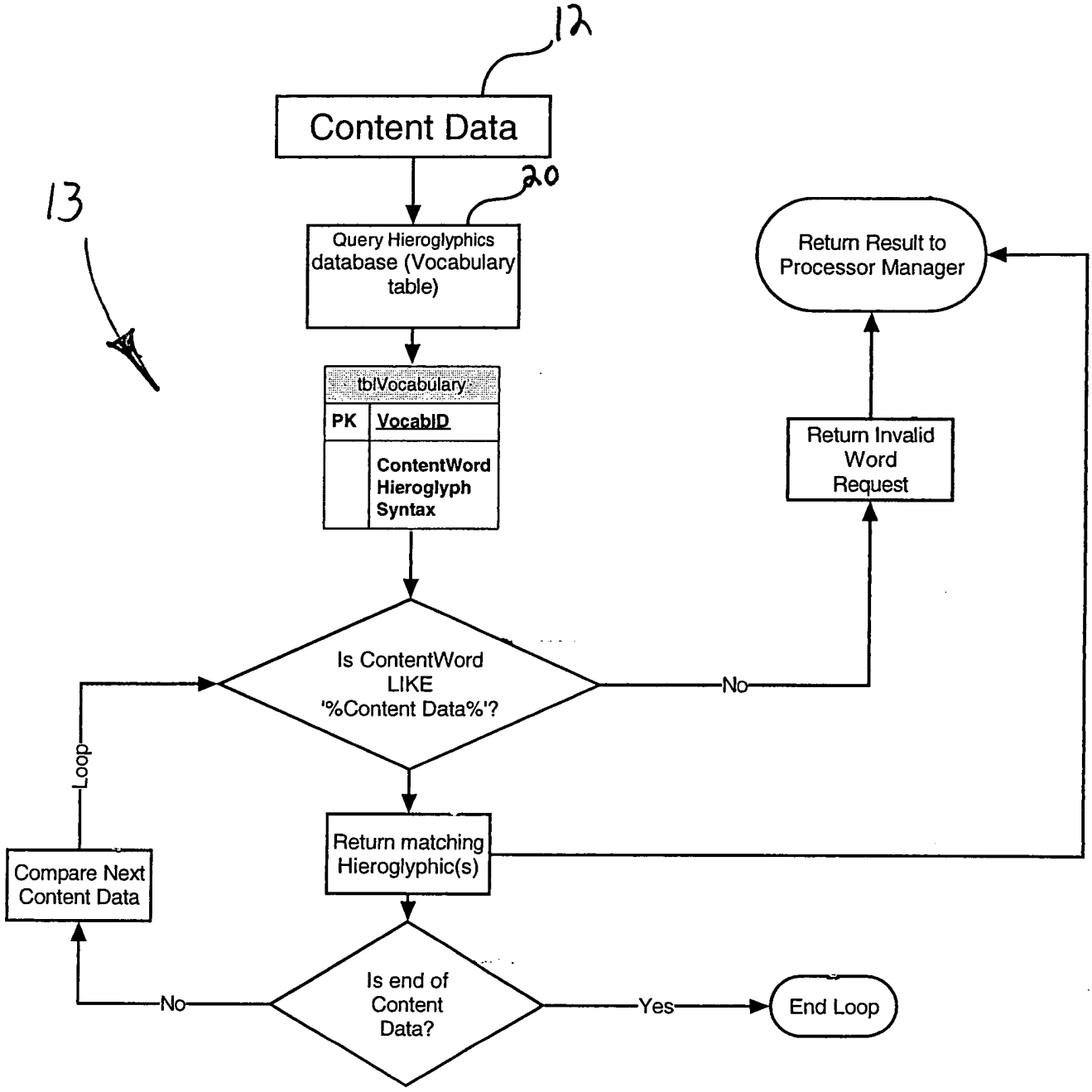

12
Content Data
20
13
Query Hieroglyphics database (Vocabulary table)
Return Result to Processor Manager
tblVocabulary
PK
VocabID
ContentWord
Hieroglyph
Syntax
Return Invalid Word Request
Is ContentWord LIKE '%Content Data%'?
No
Loop
Return matching Hieroglyphic(s)
Compare Next Content Data
Is end of Content Data?
No
Yes
End Loop

FIG. 3

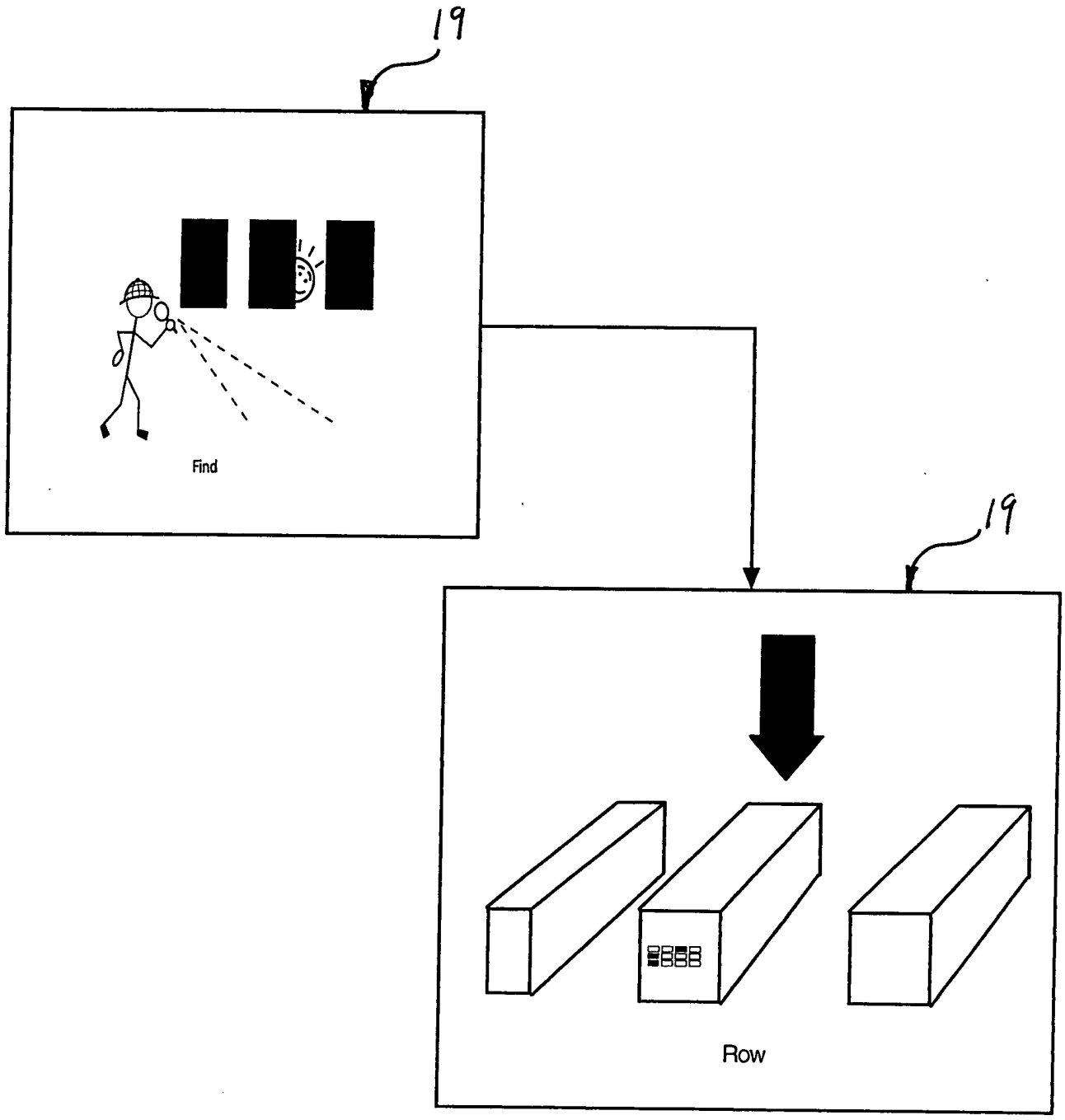


FIG. 4

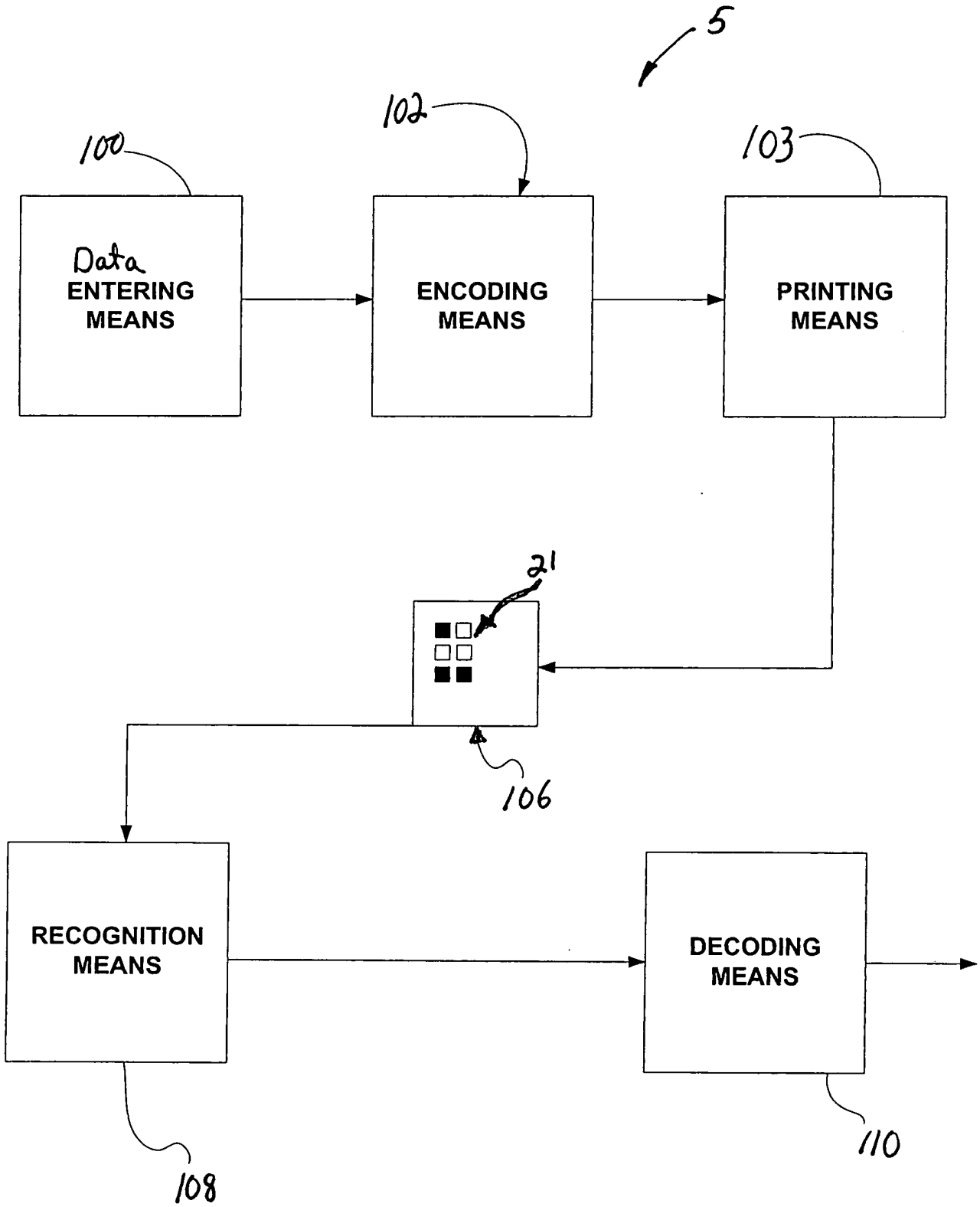

5
100
102
103
Data
ENTERING
MEANS
ENCODING
MEANS
PRINTING
MEANS
21
106
RECOGNITION
MEANS
DECODING
MEANS
108
110

FIG. 5

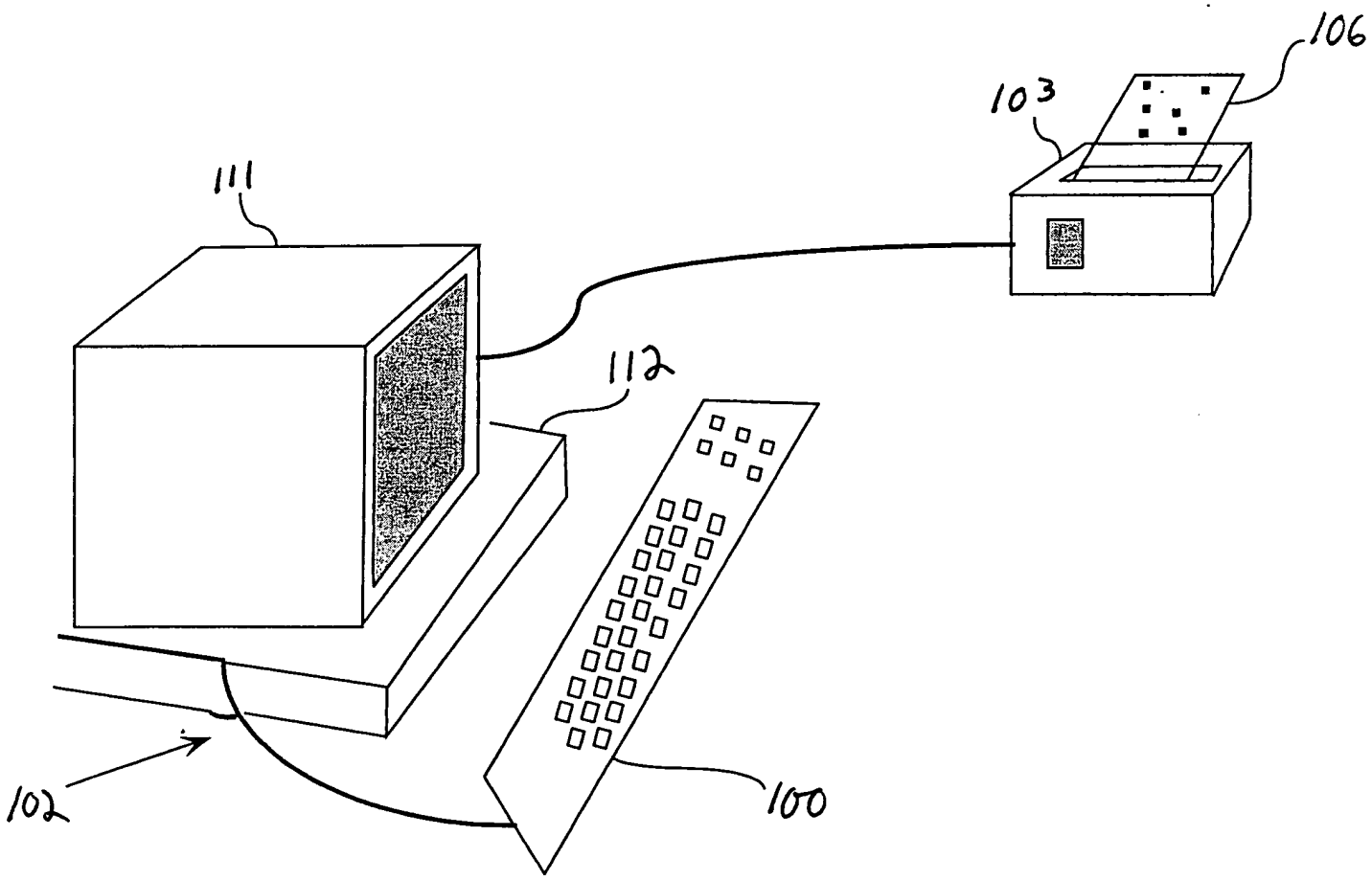


FIG. 6

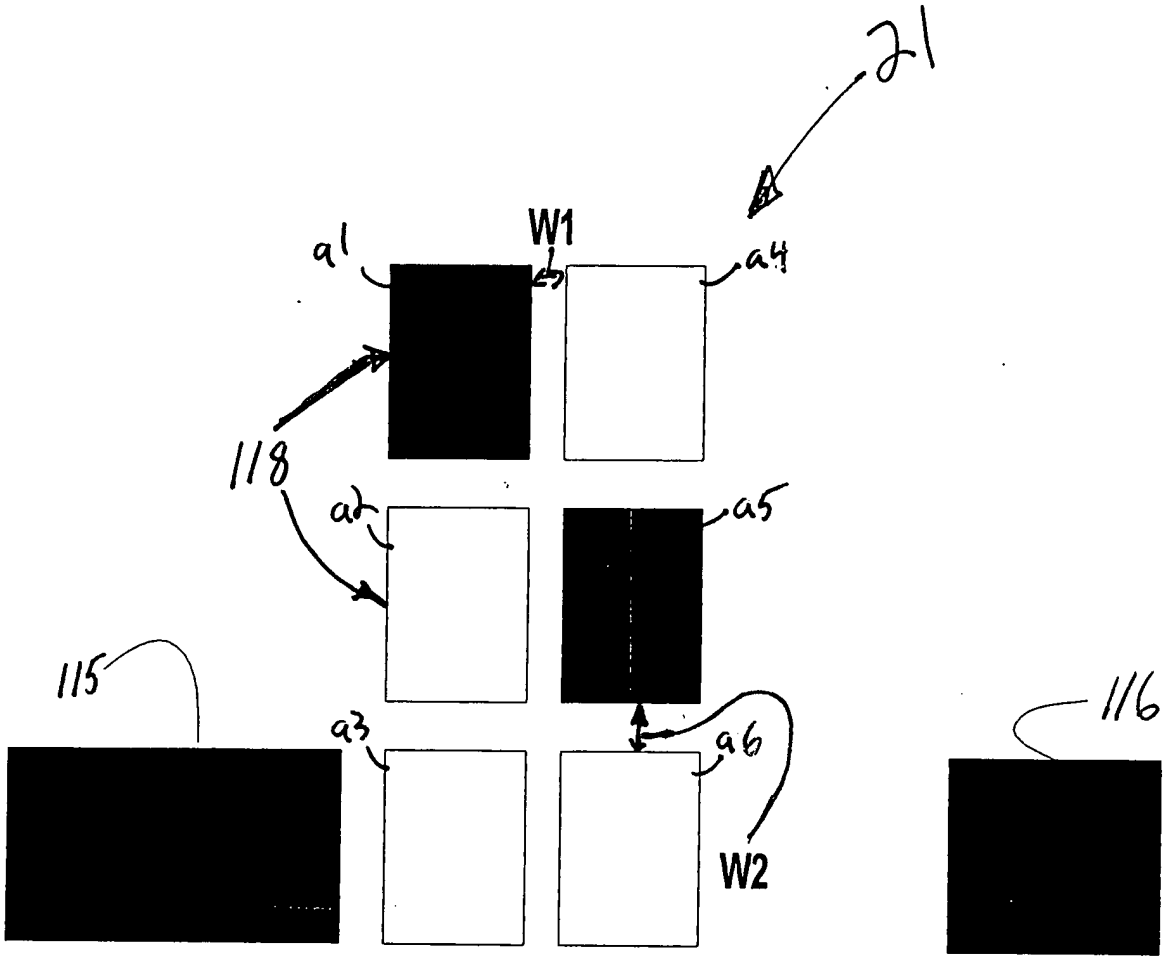


FIG. 7

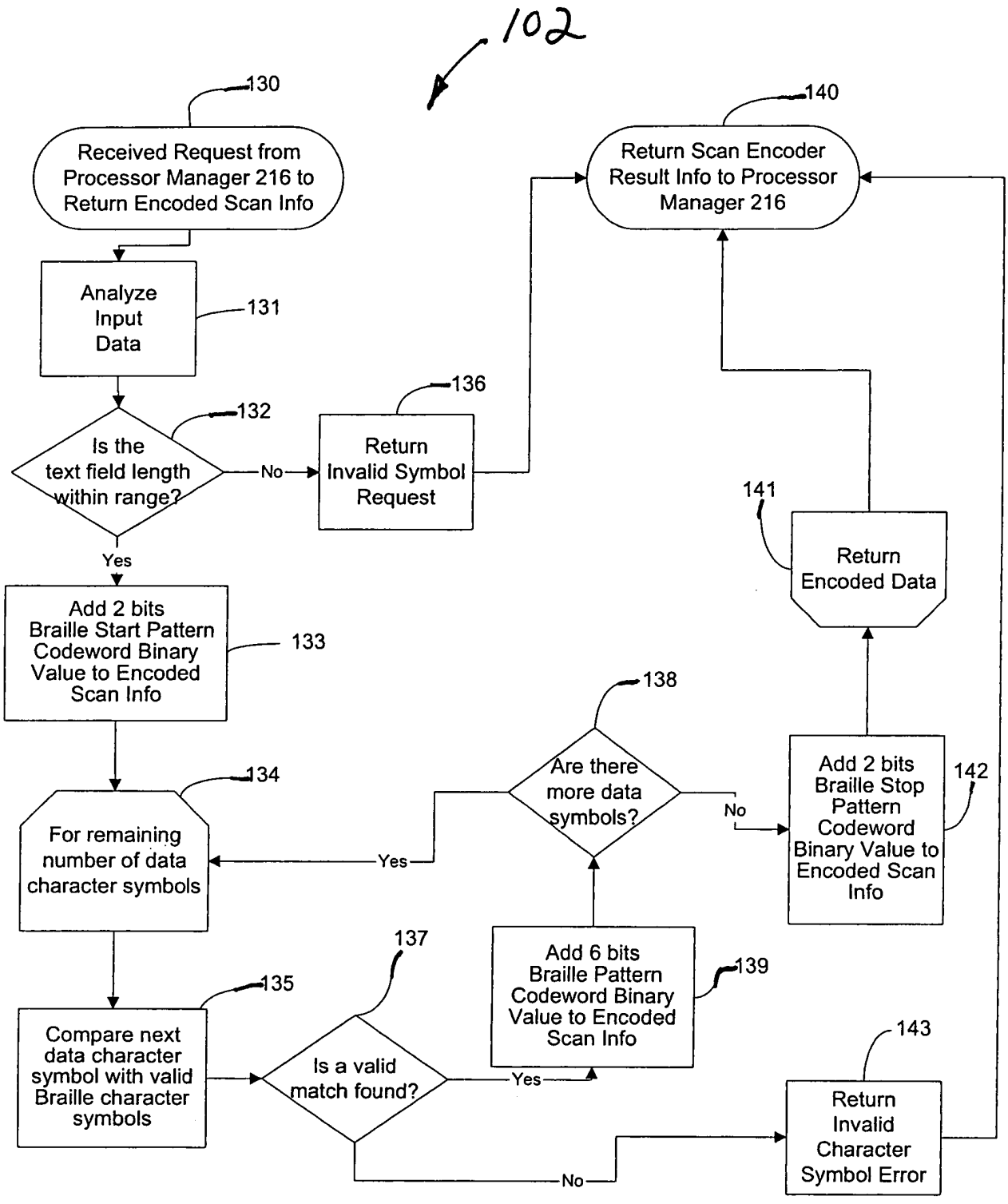

102
130
Received Request from Processor Manager 216 to Return Encoded Scan Info
Analyze Input Data
131
132
Is the text field length within range?
No
136
Return Invalid Symbol Request
Yes
Add 2 bits Braille Start Pattern Codeword Binary Value to Encoded Scan Info
133
134
For remaining number of data character symbols
135
Compare next data character symbol with valid Braille character symbols
137
Is a valid match found?
Yes
No
Add 6 bits Braille Pattern Codeword Binary Value to Encoded Scan Info
139
138
Are there more data symbols?
Yes
No
Add 2 bits Braille Stop Pattern Codeword Binary Value to Encoded Scan Info
142
141
Return Encoded Data
140
Return Scan Encoder Result Info to Processor Manager 216
143
Return Invalid Character Symbol Error

FIG. 8

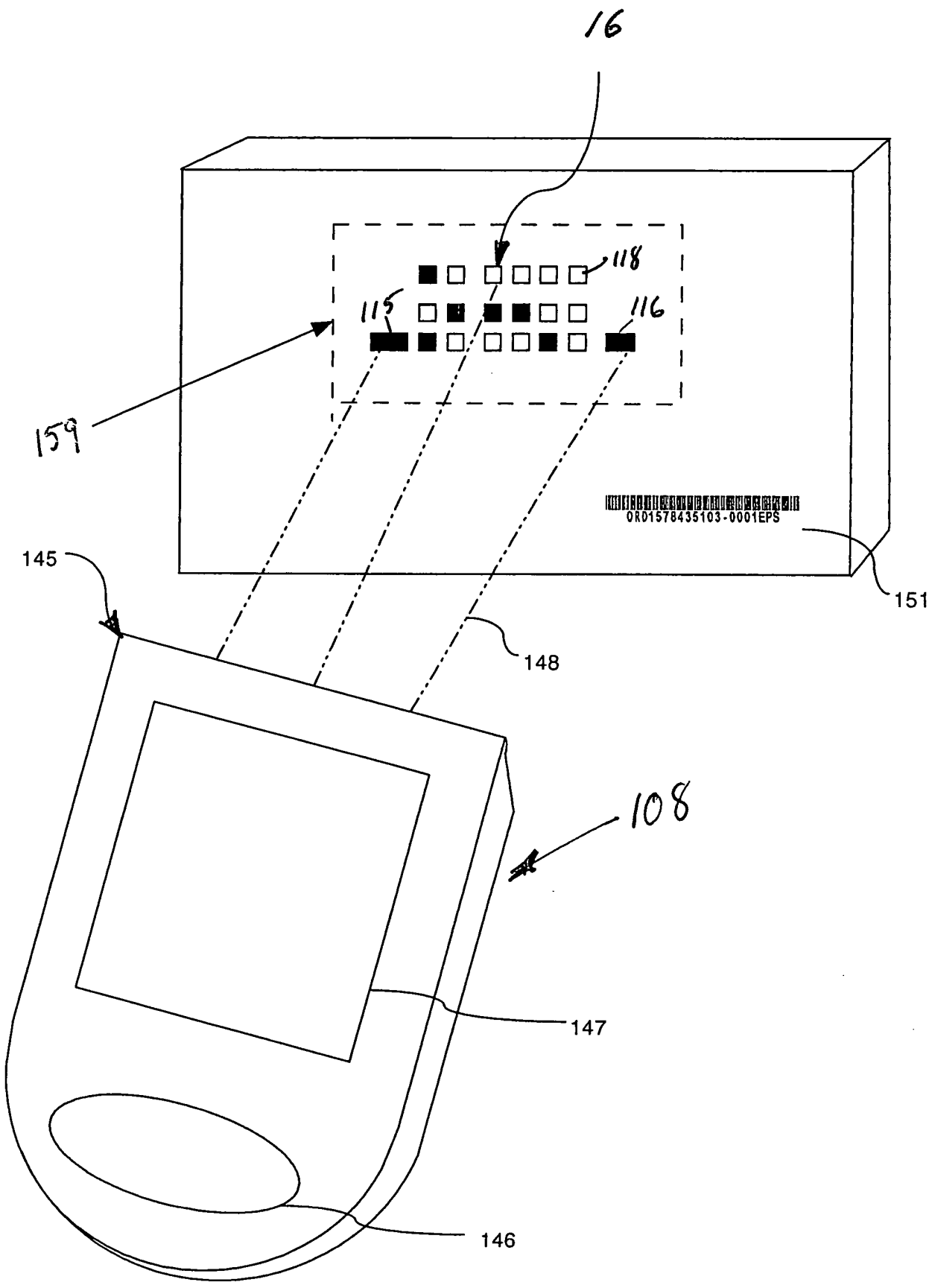

16
118
115
116
159
0RD1578435103-0001EPS
151
145
148
108
147
146

FIG. 9

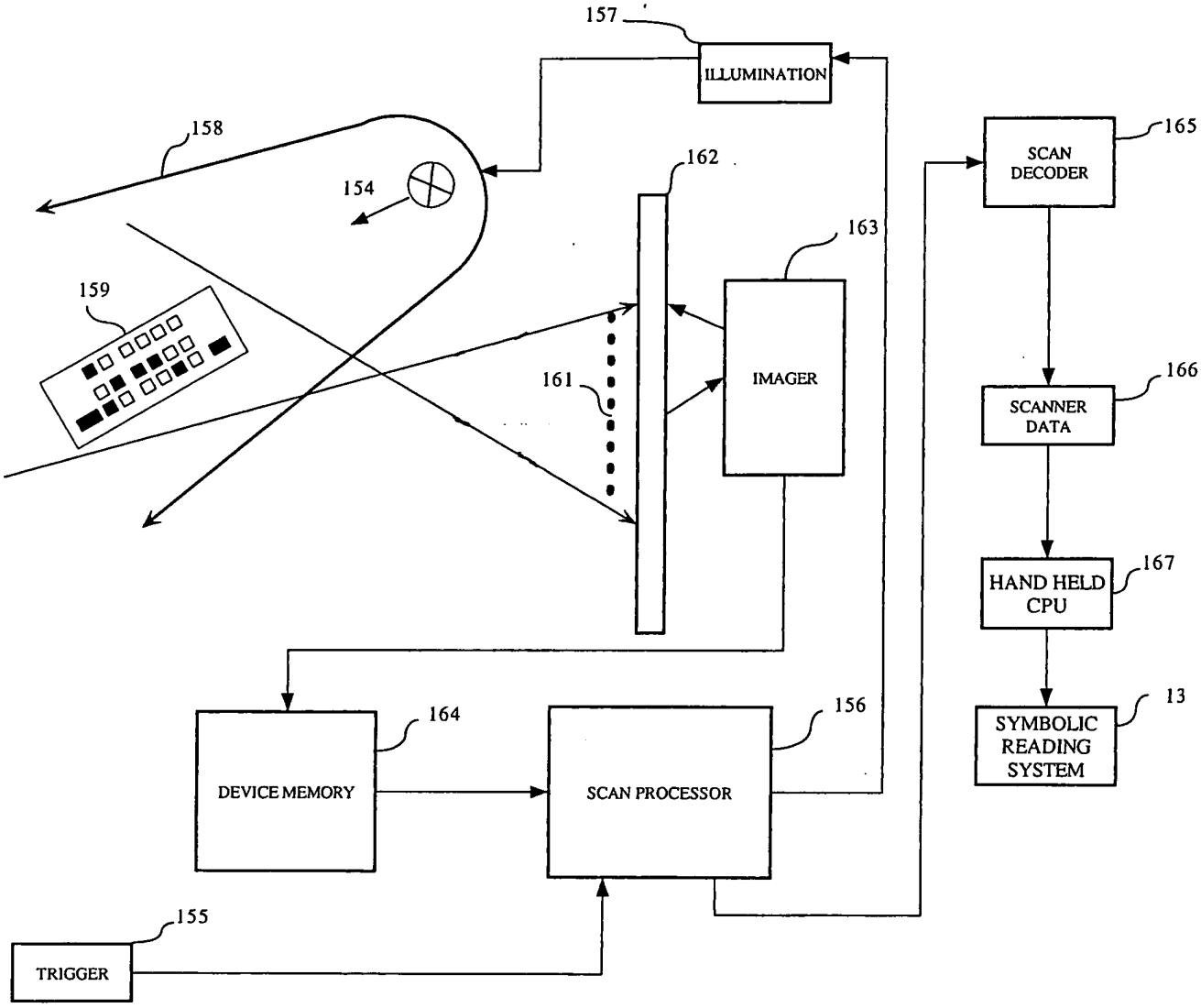

157
ILLUMINATION
158
154
162
163
159
161
IMAGER
165
SCAN DECODER
166
SCANNER DATA
167
HAND HELD CPU
13
SYMBOLIC READING SYSTEM
164
DEVICE MEMORY
156
SCAN PROCESSOR
155
TRIGGER

FIG. 10

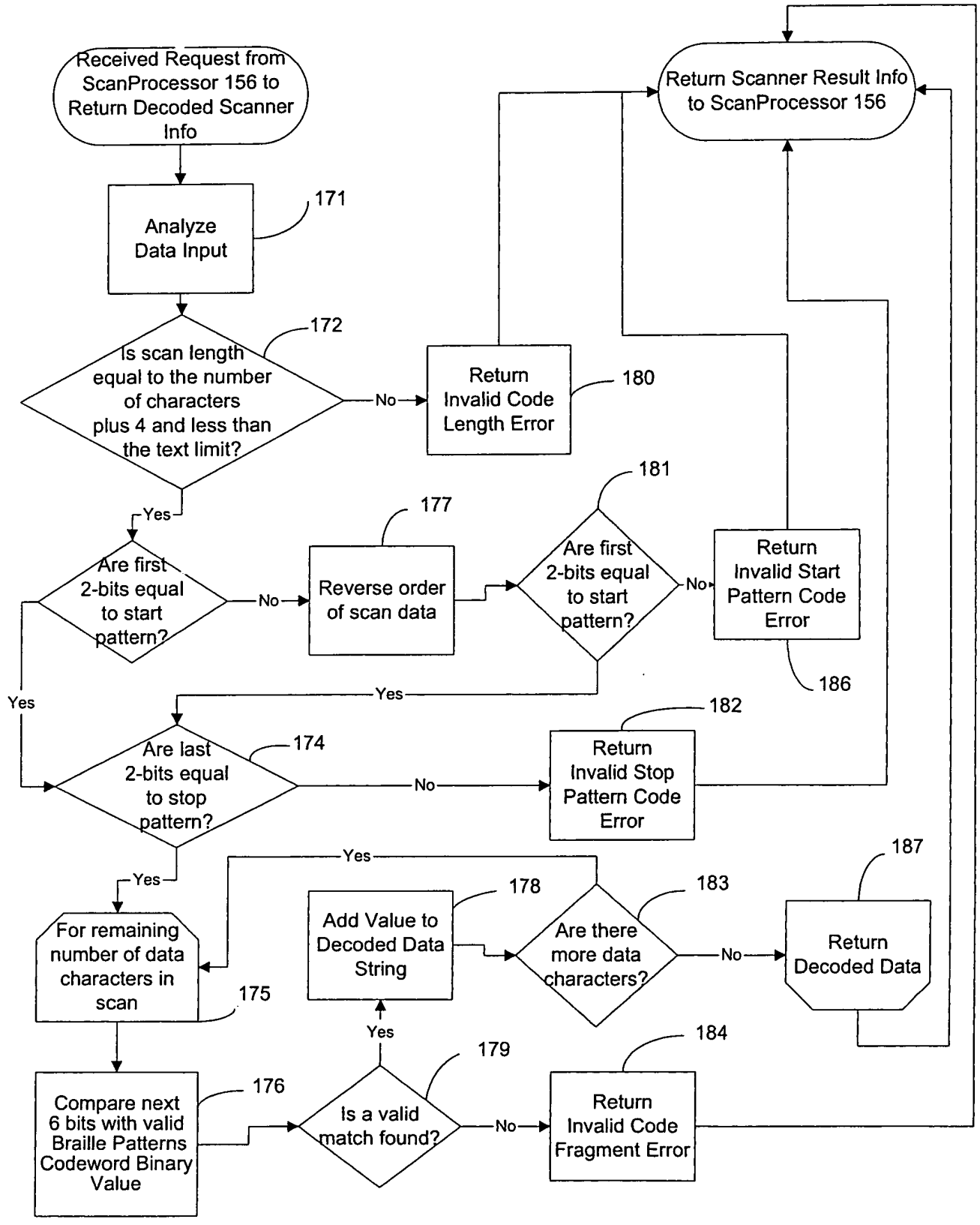

Received Request from ScanProcessor 156 to Return Decoded Scanner Info
Return Scanner Result Info to ScanProcessor 156
Analyze Data Input
171
Is scan length equal to the number of characters plus 4 and less than the text limit?
172
No
Return Invalid Code Length Error
180
Yes
Are first 2-bits equal to start pattern?
No
Reverse order of scan data
177
Are first 2-bits equal to start pattern?
181
No
Return Invalid Start Pattern Code Error
186
Yes
Yes
Are last 2-bits equal to stop pattern?
174
No
Return Invalid Stop Pattern Code Error
182
Yes
Yes
For remaining number of data characters in scan
175
Add Value to Decoded Data String
178
Are there more data characters?
183
No
Return Decoded Data
187
Yes
Compare next 6 bits with valid Braille Patterns Codeword Binary Value
176
Is a valid match found?
179
No
Return Invalid Code Fragment Error
184

FIG. 11

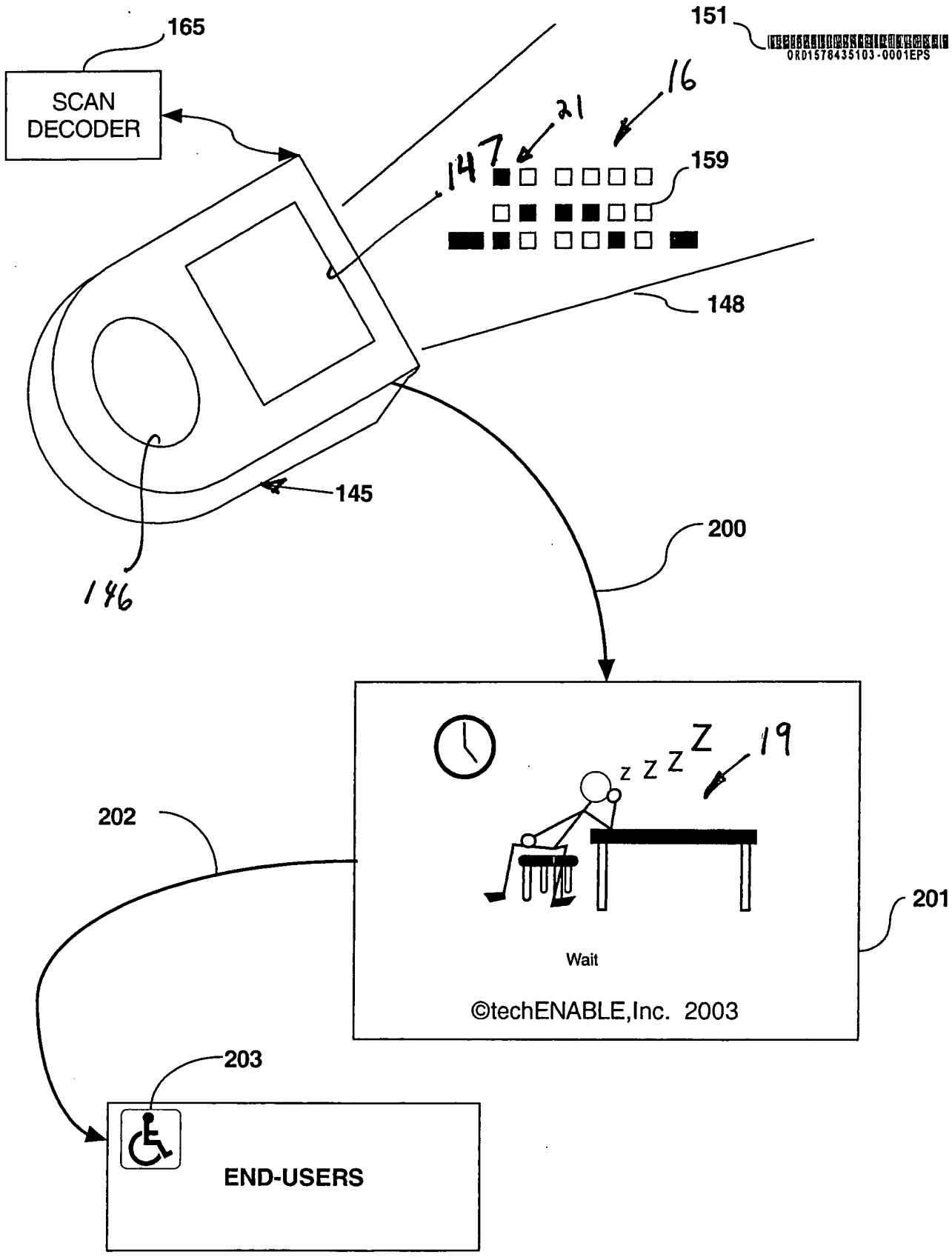
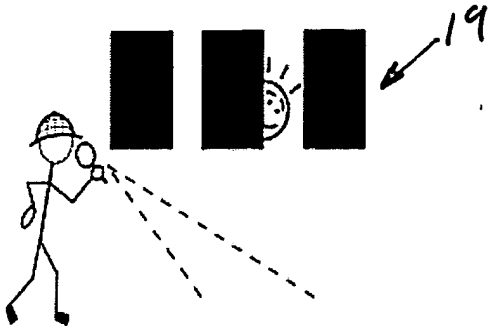
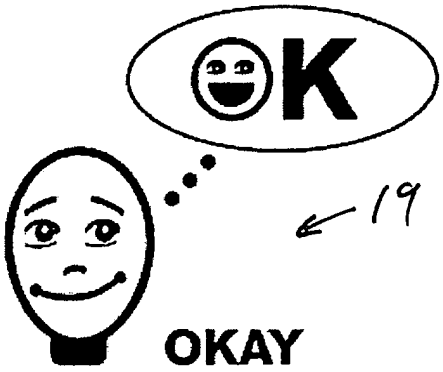

165
SCAN DECODER
151
ORD1578435103-0001EPS
16
21
147
159
148
145
146
200
19
z z z Z
202
201
Wait
©techENABLE,Inc. 2003
203
END-USERS

FIG. 12





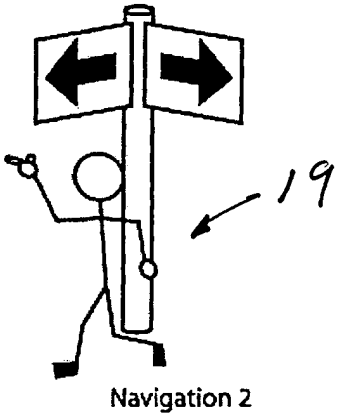
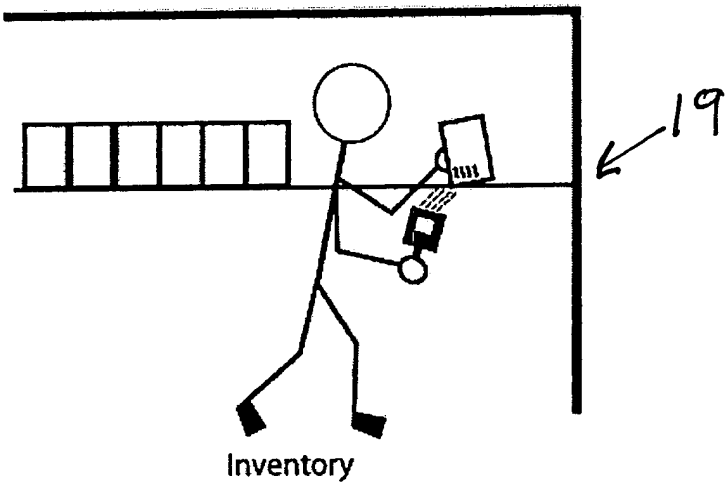


FIG. 13



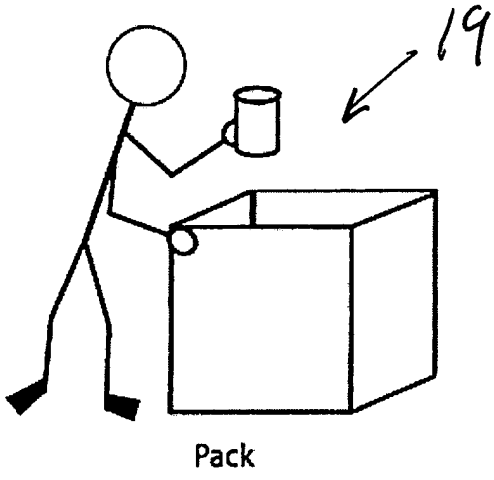


FIG. 14

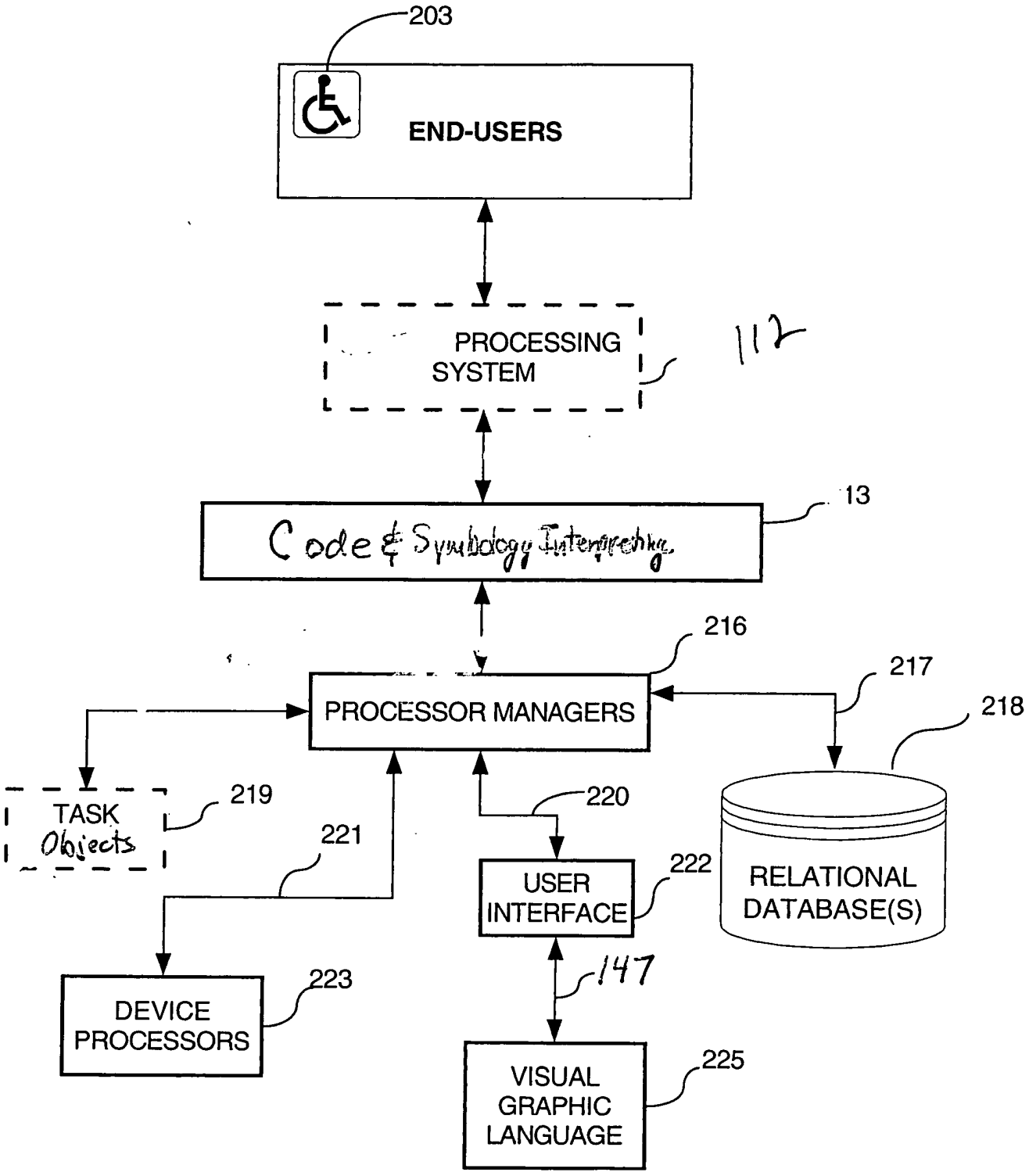

203
END-USERS
PROCESSING SYSTEM
112
Code & Symbology Interpreting
13
216
PROCESSOR MANAGERS
217
218
TASK Objects
219
220
221
USER INTERFACE
222
RELATIONAL DATABASE(S)
147
DEVICE PROCESSORS
223
VISUAL GRAPHIC LANGUAGE
225

FIG. 15

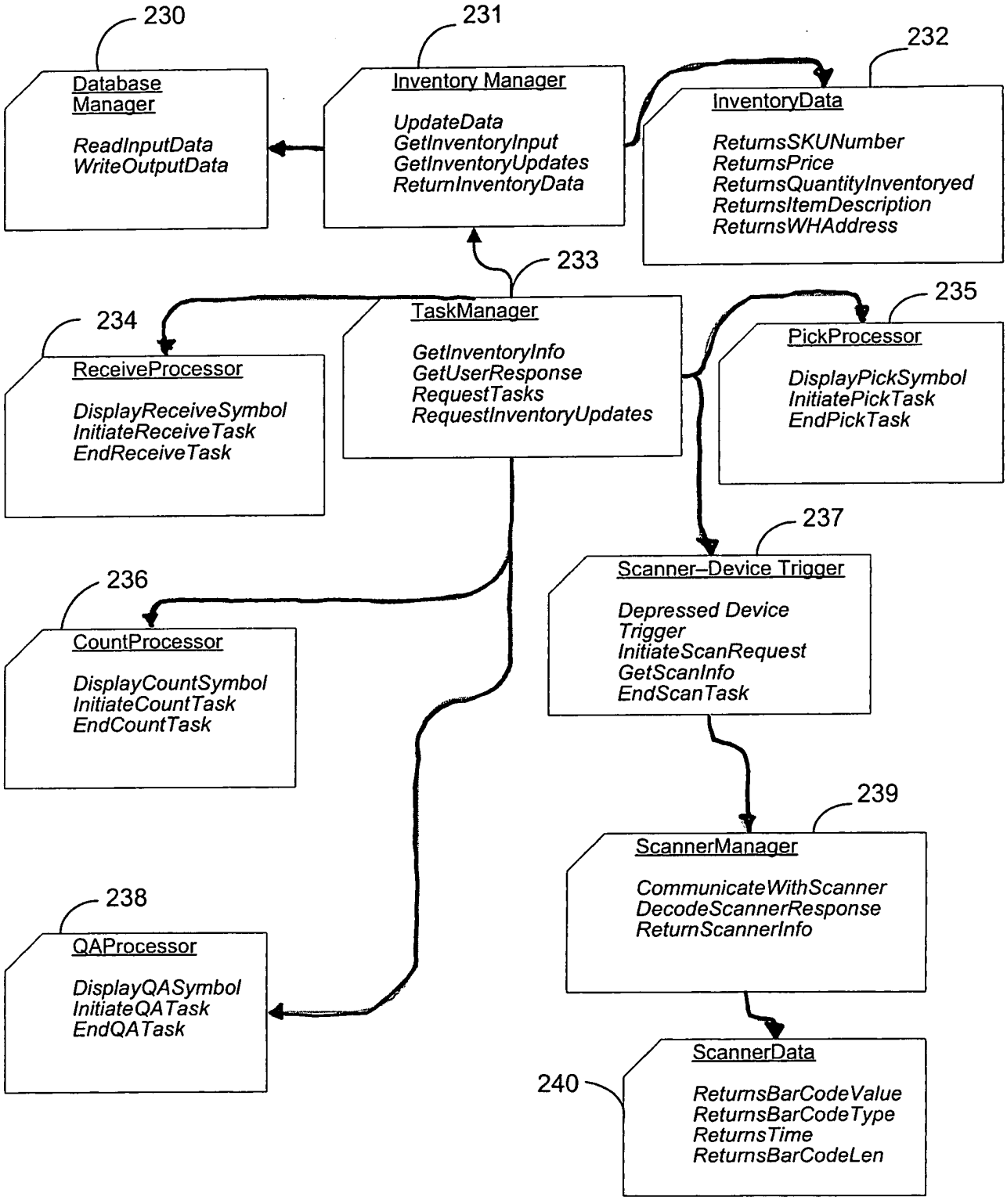

230
Database Manager
ReadInputData
WriteOutputData
231
Inventory Manager
UpdateData
GetInventoryInput
GetInventoryUpdates
ReturnInventoryData
232
InventoryData
ReturnsSKUNumber
ReturnsPrice
ReturnsQuantityInventoryed
ReturnsItemDescription
ReturnsWHAddress
233
TaskManager
GetInventoryInfo
GetUserResponse
RequestTasks
RequestInventoryUpdates
234
ReceiveProcessor
DisplayReceiveSymbol
InitiateReceiveTask
EndReceiveTask
235
PickProcessor
DisplayPickSymbol
InitiatePickTask
EndPickTask
236
CountProcessor
DisplayCountSymbol
InitiateCountTask
EndCountTask
237
Scanner–Device Trigger
Depressed Device Trigger
InitiateScanRequest
GetScanInfo
EndScanTask
238
QAProcessor
DisplayQASymbol
InitiateQATask
EndQATask
239
ScannerManager
CommunicateWithScanner
DecodeScannerResponse
ReturnScannerInfo
240
ScannerData
ReturnsBarCodeValue
ReturnsBarCodeType
ReturnsTime
ReturnsBarCodeLen

FIG. 16

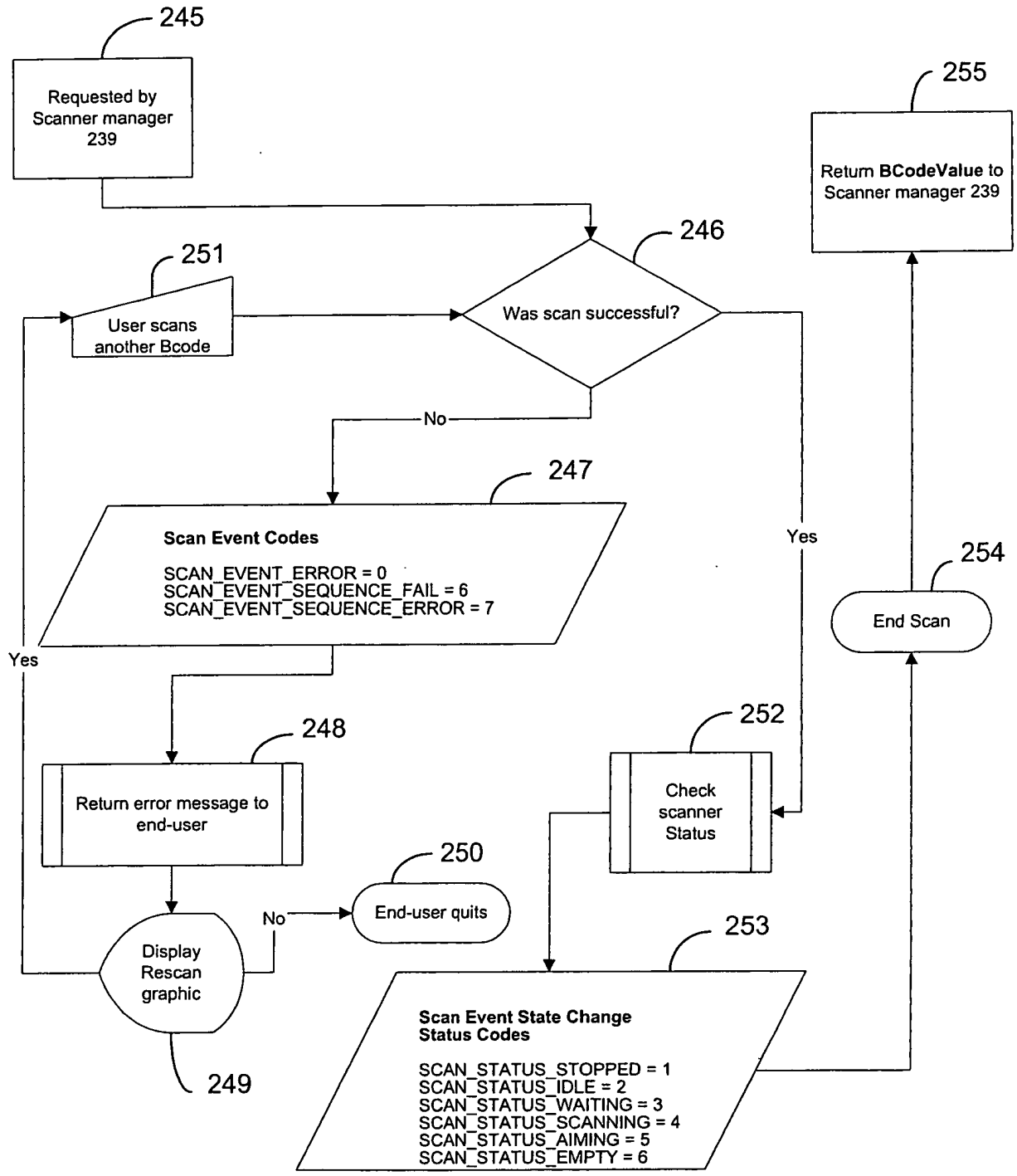

245
Requested by Scanner manager 239
255
Return BCodeValue to Scanner manager 239
246
Was scan successful?
251
User scans another Bcode
No
247
Scan Event Codes
SCAN_EVENT_ERROR = 0
SCAN_EVENT_SEQUENCE_FAIL = 6
SCAN_EVENT_SEQUENCE_ERROR = 7
Yes
Yes
254
End Scan
248
Return error message to end-user
252
Check scanner Status
250
End-user quits
No
Display Rescan graphic
253
Scan Event State Change Status Codes
SCAN_STATUS_STOPPED = 1
SCAN_STATUS_IDLE = 2
SCAN_STATUS_WAITING = 3
SCAN_STATUS_SCANNING = 4
SCAN_STATUS_AIMING = 5
SCAN_STATUS_EMPTY = 6
249

FIG. 17

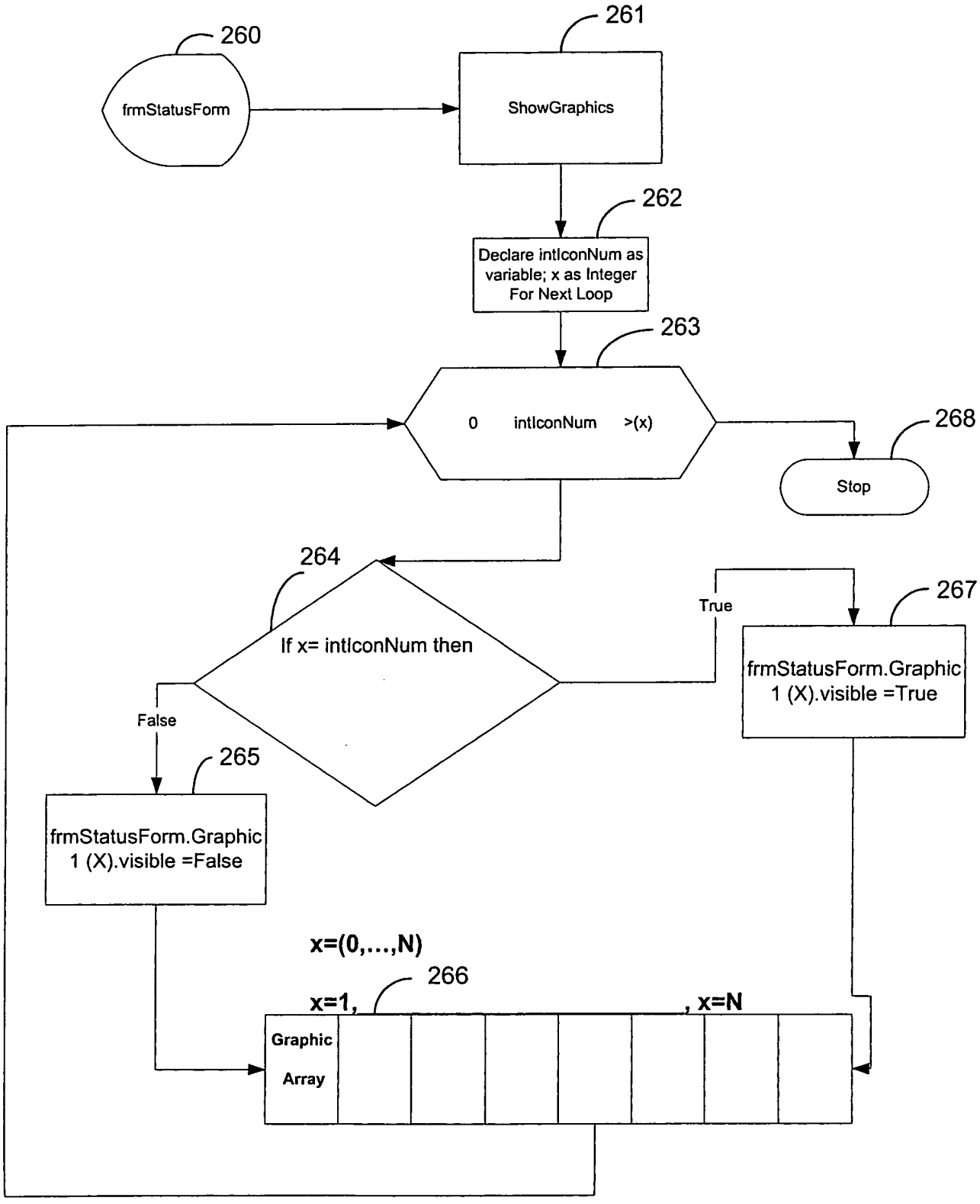

260
frmStatusForm
261
ShowGraphics
262
Declare intIconNum as variable; x as Integer For Next Loop
263
0 intIconNum >(x)
268
Stop
264
If x= intIconNum then
True
267
frmStatusForm.Graphic 1 (X).visible =True
False
265
frmStatusForm.Graphic 1 (X).visible =False
x=(0,...,N)
266
x=1,
, x=N
Graphic Array

FIG. 18

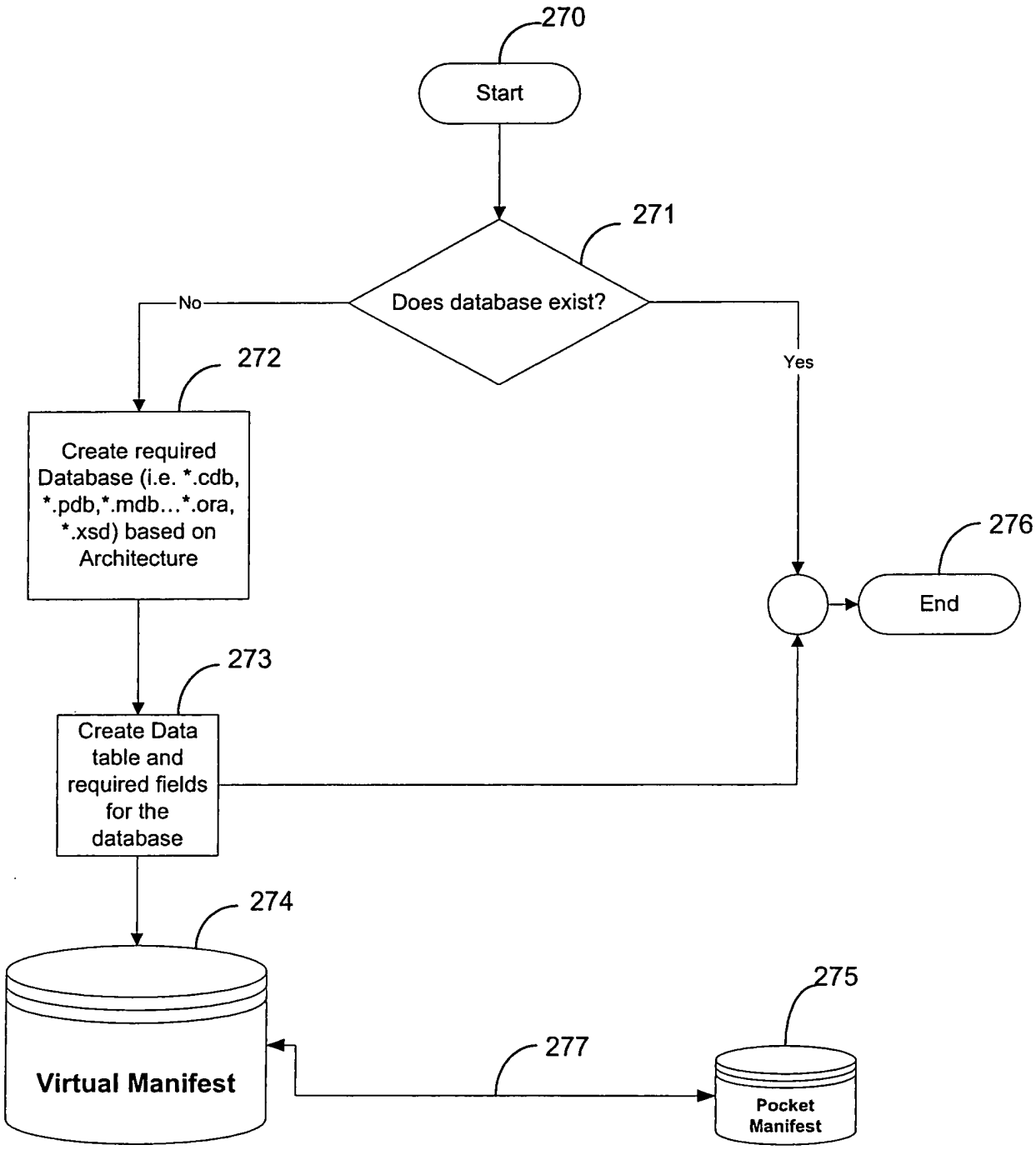

270
Start
271
Does database exist?
No
Yes
272
Create required Database (i.e. *.cdb, *.pdb,*.mdb…*.ora, *.xsd) based on Architecture
276
End
273
Create Data table and required fields for the database
274
Virtual Manifest
275
277
Pocket Manifest

FIG. 19

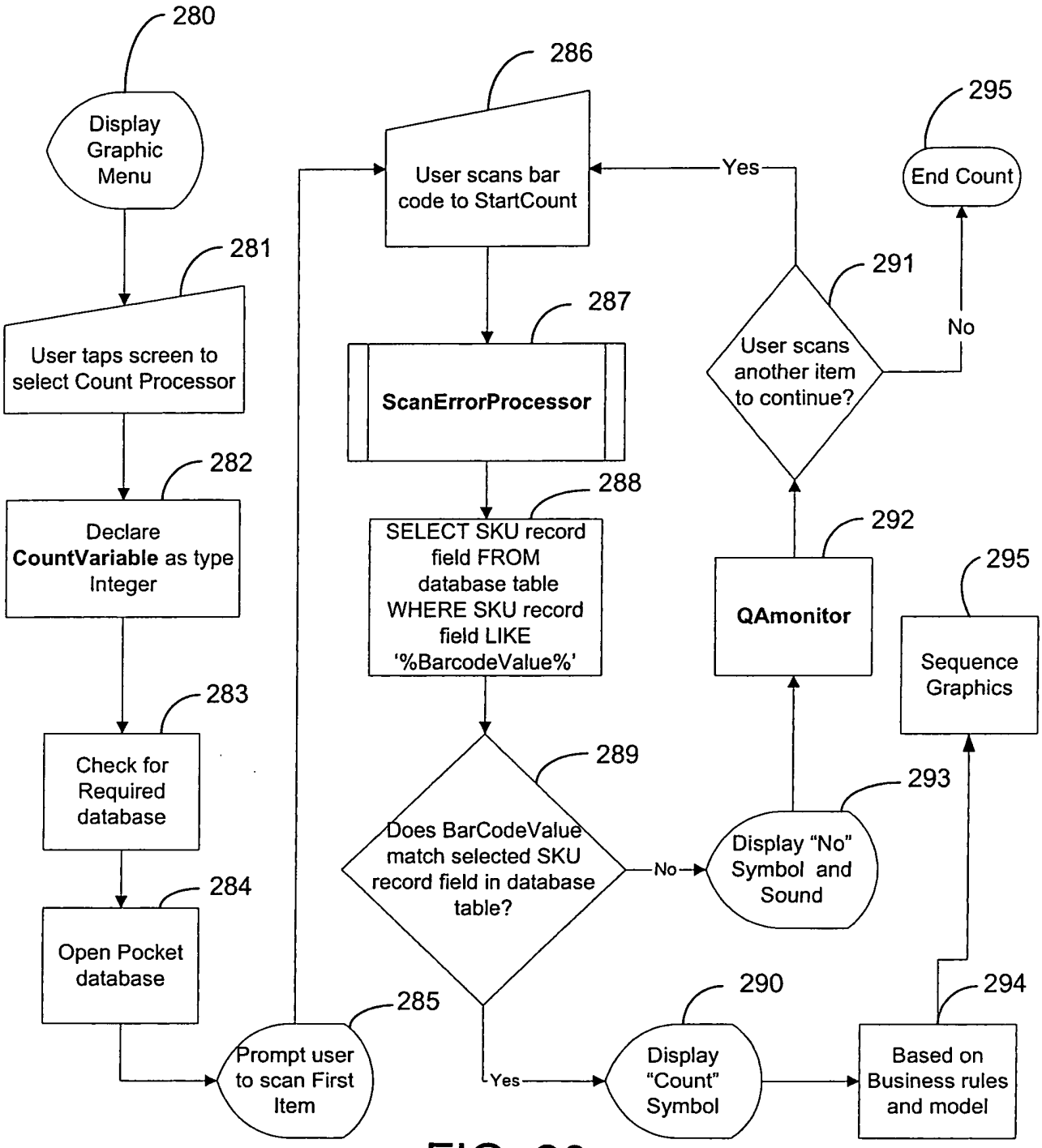

280
Display Graphic Menu
281
User taps screen to select Count Processor
282
Declare **CountVariable** as type Integer
283
Check for Required database
284
Open Pocket database
285
Prompt user to scan First Item
286
User scans bar code to StartCount
287
ScanErrorProcessor
288
SELECT SKU record field FROM database table WHERE SKU record field LIKE '%BarcodeValue%'
289
Does BarCodeValue match selected SKU record field in database table?
No
Yes
290
Display "Count" Symbol
291
User scans another item to continue?
Yes
No
292
QAmonitor
293
Display "No" Symbol and Sound
294
Based on Business rules and model
295
End Count
295
Sequence Graphics

FIG. 20